



**A Report to the  
Audit Committee**

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Internal Audit

# Audit of Public Works Revenue Collections

November 4, 2021

## EXECUTIVE SUMMARY

November 4, 2021



### Why We Did This Audit

The audit was conducted due to the high risk around cash collections within many Public Works' revenue processes.

### What We Recommend

- Implement controls such as cameras, new software, and armored car services to ensure site collections are complete.
- Implement counting and transfer of custody controls to better track the transfer of money.
- Segregate the counting, depositing, and recording functions.
- Implement an independent reconciliation of funds deposited to both system totals and general ledger amounts recorded.

# Audit of Public Works Revenue Collections

## BACKGROUND

The Metropolitan Nashville Government's Public Works department's mission was to deliver a wide range of services that improve the quality of life for residents, businesses, and visitors by ensuring safe and convenient streets transportation infrastructure; protecting the environment; and creating cleaner, beautiful, and more livable neighborhoods. Services provided included solid waste collection, convenience center operations, transportation licensing, and many other services. Budgeted revenues and transfers for Public Works are shown in Exhibit A.

### Exhibit A: Budgeted Revenue and Transfers

Budgeted Revenues/Transfers	FY 2019	FY 2020	FY 2021
<b>GSD General Fund</b>	\$7,279,400	\$5,841,100	\$4,638,800
<b>USD General Fund</b>	67,000	88,000	67,200
<b>Special Purpose Fund</b>	1,470,500	18,395,700	17,437,500
<b>Waste Management Fund</b>	26,252,600	28,138,600	34,052,500
<b>Total Revenue and Transfers</b>	<b>\$35,069,500</b>	<b>\$52,463,400</b>	<b>\$56,196,000</b>

Source: FY 21 Operating Budget by Department

As of July 1, 2021, solid waste functions, including convenience center operations, were moved to Metro Water Services. Remaining Public Works functions are included in the newly formed Nashville Department of Transportation and Multimodal Infrastructure.

## OBJECTIVES AND SCOPE

The objective of the audit was to determine whether processes and controls over revenue collections operated to ensure collections were complete, properly recorded, monitored, safeguarded, and deposited in a timely manner.

The scope of this audit included all activity from July 1, 2019, to January 31, 2021. The audit did not review revenues received from contracts or other indirect sources. Included in the audit was the revenue collection process at convenience centers and the recording of all revenues received in the Public Works finance office.

## WHAT WE FOUND

Public Works lacks many key controls to ensure complete collection and recording of revenues. Collections at convenience centers do not have safeguards to ensure cash received is recorded in the SMS system. Cash collections are not reconciled to the SMS system prior to pick-up, and no transfer of custody controls exist to ensure complete daily receipts transported from convenience centers to the administrative offices are received.

Daily receipts from various revenue sources are counted, recorded, and deposited by one individual. Reconciliations and monitoring of the deposits does not occur. Differences between supporting documentation and amounts deposited were noted.

## GOVERNANCE

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The Public Works department was created by the Metropolitan Nashville Charter Section 8.401 and is under the supervision of the mayor. Revenues collected by Public Works may fall under the purview of various boards or commissions. The Solid Waste Regional Board was formed from the Solid Waste Management Act of 1991 that required local governments to form solid waste planning regions for the purpose of preparing comprehensive, ten-year plans for the management of solid waste. The Transportation Licensing Commission has exclusive jurisdiction of the licensing and regulation of all vehicles for hire, such as taxicabs, wreckers, and so forth. The Transportation Licensing Commission also is the administrative agency for all laws and ordinances relating to the licensing and regulation of vehicles for hire and booting services.

On April 6, 2021, the Metropolitan Council adopted RS2021-794, which authorizes a memorandum of understanding between Metro Water Services and Public Works effective July 1, 2021. The memorandum of understanding transfers waste services, including convenience centers, to Metro Water Services. The resolution also created the Nashville Department of Transportation in place of the former Public Works department to better align the goals of the department with the approved Transportation Plan.

## BACKGROUND

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Revenue is collected at decentralized locations across Metropolitan Nashville and Davidson County. Locations include convenience centers, transportation licensing, permits, and the Public Works' finance office.

Convenience centers are sites where residents may dispose of excess residential trash, recyclables, and other waste items. Only cash and checks are accepted at these centers. The Transportation Licensing office approves permits for drivers and licenses for companies to operate transportation services. The office accepts cash, check, or credit cards. Other permits are sold by the Public Works' finance office or Engineering Office. These permits may be paid via cash, check, or credit card.

The audit performed walkthroughs of convenience centers, transportation licensing, and permitting cash collection processes. However, only the convenience centers' collection process was included in the audit testing due to the high-risk nature. Transportation Licensing and permitting were considered lower risk, and collections process controls were not tested for these areas. Detailed testing was performed on all cash and checks from arrival in the Public Works finance office through recording in the general ledger.

The Rapid Response Team collects the prior days' revenues every morning and brings them to the Finance Officer 3 in the Public Works' finance office. Other revenue warrants with any cash and checks are forwarded to the Public Works' finance office to be recorded in the general ledger.

The Finance Officer 3 who receives the collections is responsible for multiple functions, including selling some permits and collecting those receipts. The same staff member also receives all the prior day's collections from other locations, prepares and makes the bank deposit, and prepares and makes the receipt entries into the general ledger system. Revenues recorded within the audit scope are shown in Exhibit B.

## Exhibit B: Recorded Revenues within the Audit Scope

Revenue Category	FY2019	FY2020	FY2021
Engineering Permits	\$4,575,589	\$4,954,903	\$6,039,054
Convenience Centers	3,029,102	2,748,730	3,981,709
Disposal Services/Collections	3,247,722	3,781,963	3,876,727
Transportation Licensing	541,705	303,715	223,006
Miscellaneous	200,831	296,469	553,081
Garbage and Inventory Re-Sale	268,696	209,662	284,314
	\$11,863,645	\$12,295,442	\$14,957,891

Source: Oracle E-Business Suite R12

## OBJECTIVE AND CONCLUSION

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*Are controls over revenue collections operating in accordance with management's objectives?*

*a. Are revenue collections complete, deposited timely, and properly recorded?*

**Inconclusive – Scope Limitation.** Deficiencies in controls with the convenience center collections and SMS system were significant enough that a scope limitation existed. Consequently, the Office of Internal Audit was unable to render an opinion whether stated revenue collections were complete and accurate. Convenience centers accept only cash or check, and funds are collected by one individual. Daily totals are not reconciled by anyone at the convenience centers. A daily comparison of the convenience center's SMS system totals to the R12 general ledger from October 1, 2019, to January 31, 2021, showed an over reporting of revenues in the general ledger of \$12,185.05. A review of SMS system access showed that improper levels of access were assigned to users, and users with counting and recording capabilities could also alter SMS data.

Additionally, all funds are counted, deposited, recorded, and reconciled by one individual within the Public Works finance office. An independent reconciliation of revenues collected to amounts deposited was not performed. (See Observations B, C, and D.)

*b. Are revenue collections monitored and safeguarded?*

**No.** Public Works lacks controls to safeguard and monitor collections. Safes are in place at each location; however, on one occasion, the Office of Internal Audit observed the previous day's cash left in the cash register instead of being deposited in the safe. Transfers of custody from the convenience centers or Transportation Licensing to the Rapid Response Team are not documented to ensure accountability. Additionally, transfers between the Rapid Response Team to the Finance Officer 3 are not documented. (See Observations A and E.)

## AUDIT OBSERVATIONS

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Internal control helps entities achieve important objectives and sustain and improve performance. The Committee of Sponsoring Organizations of the Treadway Commission, *Internal Control – Integrated Framework (COSO)*, enables organizations to effectively and efficiently develop systems of internal control that adapt to changing business and operating environment, mitigate risks to acceptable levels, and support sound decision making and governance of the organization. The audit observations listed are offered to assist management in fulfilling their internal control responsibilities.

### ***Observation A – Lack of Transfer of Custody Controls***

Convenience center collections and Transportation Licensing collections are transferred between employees without being counted and documented. Money is not counted by two people when the Rapid Response Team arrives at each convenience center to get the prior day's collections from the safes. Sign offs indicating the transfer of funds between the collection sites and the Rapid Response Team were not used until the latter part of the audit period. However, the funds were not counted before the transfer. No external record of money dropped into the safes at the end of the shifts exists. During the audit period, the \$300 change fund was in the same safe as the safe used for the daily collections, at each convenience center.

The Office of Internal Audit performed walkthroughs and discussed procedures with key employees. Ride-alongs with the Rapid Response Team on the route to pick up money from the safes at the convenience centers and the Transportation Licensing office occurred.

Certain efforts, such as installing separate safes for the change fund at each convenience center, were made to improve the controls after the start of the audit. In the latter part of the audit period, the convenience centers began using a tracking sheet, signed by the center employees, to indicate they dropped their daily shift money into the safe. The sheet would be signed by the Rapid Response Team driver as he brought it to the finance office. However, the amount was not always documented on the page, and the envelope was not opened and counted by both people at the time cash was transferred. Additionally, the document was not retained for more than approximately a week unless a difference in amount was noted.

Without proper documentation when cash is transferred, a risk of theft exists. Indications of transfer of custody aide in ruling out who stole missing funds.

#### ***Criteria:***

- *COSO, Control Activities—Principle 10—The organization selects and develops control activities that contribute to the mitigation of risks to the achievement of objectives to acceptable levels.*

#### ***Assessed Risk Rating:***

**High**

#### ***Recommendations for management of the Nashville Transportation and Multimodal Infrastructure and Metro Water Services to:***

1. Implement procedures to ensure that all funds collected are counted, documented, and signed by parties collecting the funds.
2. Implement transfer of custody processes to ensure each person who acquires funds throughout the day is accountable for the amount of funds received and delivered to other parties.

### ***Observation B - Lack of Recording Controls and Segregation of Duties***

The Public Works finance office's functions lack segregation of duties. The same person counts the collections received from other locations, makes the bank deposits, and records the collections in the general ledger. Additionally, the same staff member may sell permits and record those collections.

A sample of 51 bank deposits from 406 possible business days were tested to determine if deposits were prepared with adequate controls over the receipt of collections. Bank deposits were not prepared with adequate controls due to one person performing all functions. Quantifying exact error amounts was difficult due to the volume of multiple deposits on the same day, and in some cases, combining revenues causing inconsistencies between deposits and receivable warrants.

Test work performed identified the following additional control weaknesses:

- Staggered working days in the office during the Covid-19 pandemic prevented full compliance with Metropolitan Nashville Government policy requiring funds be deposited into depository bank accounts within one business day of receipt.
- No review or follow-up occurred when convenience centers had shortages or overages. The Finance Officer 3 puts a handwritten note for amounts over or short, but no additional tracking is done. For the 51 deposits tested, the net difference in the convenience center daily sales reports was a shortage of \$731.05 with 20 deposits (39 percent) having overages or shortages.
- No reconciliation of revenues and deposits by an independent department reviewer occurs. A daily comparison between the convenience center revenues recorded in the R12 general ledger and the convenience center's daily SMS system transaction totals was performed. Of the 330 business days reviewed, 153 days (46 percent) had differences. The overall total of differences was an over reporting of \$12,185.05. An overage indicates that receipts were recorded in the general ledger but were never recorded at the convenience center location.

Without segregation of duties or compensating controls, the risk of theft is increased. Additionally, errors made in recording may not be caught due to no independent review.

#### *Criteria:*

- COSO, Control Activities—Principle 10—The organization selects and develops control activities that contribute to the mitigation of risks to the achievement of objectives to acceptable levels.

#### *Assessed Risk Rating:*

**High**

#### *Recommendations for management of the Nashville Transportation and Multimodal Infrastructure to:*

1. Segregate the duties of collections, preparing the bank deposit, and making the entry into the general ledger system.
2. Ensure an independent department employee reconciles the collections of revenue to the bank deposits.

### ***Observation C – System Access Not Limited to Least Permissions***

The convenience centers use the SMS CC system to record transactions and calculate daily receipts. However, controls over the system are not adequate. The system has been in use for many years and was designed to be used at a location with scales. When that original scale house location closed, the SMS CC system was moved to the convenience centers even though they do not utilize scales. Certain functions that relate to sales by weight are no longer needed but may still be accessed.

A review of user access within SMS CC was performed. Sixteen people have access to SMS CC. The employee with the most permissions is the same Public Works finance office employee who counts the collections, records the collections into the general ledger, and makes the bank deposits. The employee's permissions include voiding transactions and deleting data. A review of voided transactions during the audit period showed there were no voids performed by anyone. A review 108,855 transaction numbers showed 27 gaps (<1 percent), which did not indicate any likely tampering with data. Improper access assignments increase the risk of tampering with data to cover fraud or errors.

*Criteria:*

- COSO, Control Activities—Principle 10—The organization selects and develops control activities that contribute to the mitigation of risks to the achievement of objectives to acceptable levels.

*Assessed Risk Rating:*

**High**

*Recommendations for management of Metro Water Services to:*

1. Explore other transaction recording systems that better align with the goals and processes of the convenience centers.
2. Review and update SMS CC system access to assign least permissions to users.

***Observation D - Lack of Controls Over Collections at Convenience Centers***

Convenience centers do not have adequate controls to ensure that all funds are collected. Staff at convenience center entries are supposed to scan patrons' driver's licenses, enter the transaction details, and provide a receipt if requested. However, observation of the process showed staff sometimes do not look at driver's licenses for efficiency. Thus, quantifying the volume of patrons and any related resourcing needs from volume is difficult.

Additionally, convenience centers only accept cash or checks, and centers have a single employee working the entry. Cameras are not used to monitor the centers, and as long as a receipt is not requested, employees could easily bypass entering the payment and misappropriate cash received. At the end of each shift, no formal shift close out occurs. The employee ending his shift counts the cash drawer money and places it in the safe. A second person does not witness or count the money.

Accepting cash by one individual without proper supervision increases the risk of theft. Without adequate counting and documenting of the amount of funds present, risk of theft or loss of revenue increases.

*Criteria:*

- COSO, Control Activities—Principle 10—The organization selects and develops control activities that contribute to the mitigation of risks to the achievement of objectives to acceptable levels.

*Assessed Risk Rating:*

**High**

*Recommendations for management of Metro Water Services to:*

1. Implement a credit card system of payment to limit cash collections.
2. Implement processes to either require scanning of all patron's driver's licenses or some other measure to ensure adequate tracking of customer volume.
3. Arrange staff so that shifts can be closed with more than one person counting and documenting the money.
4. Install cameras at each convenience center to monitor employees collecting cash.

**Observation E - Physical Asset Security**

**CONFIDENTIAL:** Not subject to records open to public inspection. Exemption granted by Tennessee Code Annotated §10-7-504 (i) (1) "Information that would allow a person to obtain unauthorized access to confidential information or to government property shall be maintained as confidential."



## **GOVERNMENT AUDITING STANDARDS COMPLIANCE**

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We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our observations and conclusions based on our audit objectives.

## **METHODOLOGY**

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To accomplish our audit objectives, we performed the following steps:

- Reviewed applicable laws and regulations.
- Interviewed key personnel within Public Works.
- Performed walkthroughs of key processes at convenience centers, Rapid Response, and the Public Works finance office.
- Reviewed transaction details and deposit supporting documentation.
- Performed analytics on transactions recorded.
- Evaluated internal controls currently in place.
- Considered risk of fraud, waste, and abuse.

## **AUDIT TEAM**

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Mary Cole, CPA, CISA, CFE, Auditor-in-Charge

Lauren Riley, CPA, CIA, CFE, ACDA, CMFO, Metropolitan Auditor

## APPENDIX A – MANAGEMENT RESPONSE AND ACTION PLAN

We believe that operational management is in a unique position to best understand their operations and may be able to identify more innovative and effective approaches and we encourage them to do so when providing their response to our recommendations.

	Recommendations	Concurrence and Action Plan	Proposed Completion Date
<i>Recommendations for management of the Nashville Department of Transportation to:</i>			
H	A.1 Implement procedures to ensure that all funds collected are counted, documented, and signed by parties collecting the funds.	<b>Agree. Funds will be collected, counted, and documented by more than one individual at the facility where money is collected, prior to deposit.</b>	December 31, 2021
H	A.2 Implement transfer of custody processes to ensure each person who acquires funds throughout the day is accountable for the amount of funds received and delivered to other parties.	<b>Agree. When money changes hands, it will be counted, separately verified, and documented such that custody can be tracked.</b>	December 31, 2021
H	B.1 Segregate the duties of collections, preparing the bank deposit, making the entry into the general ledger system.	<b>Agree. Locations where money is collected will write and make deposits (separate employees). Documentation will be forwarded for recording and separate reconciliation.</b>	November 30, 2021
H	B.2 Ensure an independent person reconciles the collections of revenue to the bank deposits.	<b>Agree. Personnel recording transactions will be separate from the personnel reconciling the deposits. Reconciliation will reconcile operational reports to software and GL and be completed at least monthly.</b>	November 30, 2021
<i>Recommendations for management of Metro Water Services to:</i>			
H	A.1 Implement procedures to ensure that all funds collected are counted, documented, and signed by parties collecting the funds.	<b>Agree. A revised Deposit Tracking form will be developed, two employees will count, verify, and document receipts daily.</b>	December 31, 2021
H	A.2 Implement transfer of custody processes to ensure each person who acquires funds throughout the day is accountable for the amount of funds received and delivered to other parties.	<b>Agree. A revised transfer of custody form has been created to ensure accountability for funds throughout the day from original receipt to the bank.</b>	December 31, 2021
H	B.1 Segregate the duties of collections, preparing the bank deposit, making the entry into the general ledger system.	<b>Agree. Cash will be counted and deposited by two separate convenience center employees. Separate staff will review reporting and record deposit.</b>	December 31, 2021
H	B.2 Ensure an independent person reconciles the collections of revenue to the bank deposits.	<b>Agree. Reconciliation of deposit tracking sheets, banking information, software reports, and R12 records will be conducted monthly.</b>	December 31, 2021

## APPENDIX A – MANAGEMENT RESPONSE AND ACTION PLAN

	Recommendations	Concurrence and Action Plan	Proposed Completion Date
H	C.1 Explore other transaction recording systems that better align with the goals and processes of the convenience centers.	<b>Agree. MWS has begun process of implementing their cashiering system, Inovah at centers. This will allow for better reporting and credit card transactions that will limit cash. Ultimately, Water is considering implementing Kiosks for further alignment and safety.</b>	March 31, 2022
H	C.2 Review and update SMS CC system access to assign least permissions to users.	<b>Agree. System access is limited to convenience center employees and MWS IT. Only MWS IT has administrative access.</b>	Completed
H	D.1 Implement a credit card system of payment to limit cash collections.	<b>Agree. See response to C.1.</b>	March 31, 2022
H	D.2 Implement processes to either require scanning of all patron's driver's licenses or some other measure to ensure adequate tracking of customer volume.	<b>Agree. See response to C.1</b>	March 31, 2022
H	D.3 Arrange staff so that shifts can be closed with more than one person counting and documenting the money.	<b>Agree. Staff and centers will be arranged such that two people have 30 minutes to count and document daily cash collection.</b>	January 31, 2022
H	D.4 Install cameras at each convenience center to monitor employees collecting cash.	<b>Agree. At least two cameras will be installed at each center, one of the transactions and one on the safe. The barrier to this fiber connectivity which must be installed as well.</b>	November 2022, based on funding

## APPENDIX B – ASSESSED RISK RANKING

Observations identified during the course of the audit are assigned a risk rating, as outlined in the table below. The risk rating is based on the financial, operational, compliance or reputational impact the issue identified has on the Metropolitan Nashville Government. Items deemed “Low Risk” will be considered “Emerging Issues” in the final report and do not require a management response and corrective action plan.

Rating	Financial	Internal Controls	Compliance	Public
<b>HIGH</b>	Large financial impact >\$25,000  Remiss in responsibilities of being a custodian of the public trust	Missing, or inadequate key internal controls	Noncompliance with applicable Federal, state, and local laws, or Metro Nashville Government policies	High probability for negative public trust perception
<b>MEDIUM</b>	Moderate financial impact \$25,000 to \$10,000	Partial controls  Not adequate to identify noncompliance or misappropriation timely	Inconsistent compliance with Federal, state, and local laws, or Metro Nashville Government policies	Potential for negative public trust perception
<b>LOW/ Emerging Issues</b>	Low financial impact <\$10,000	Internal controls in place but not consistently efficient or effective  Implementing / enhancing controls could prevent future problems	Generally complies with Federal, state, and local laws, or Metro Nashville Government policies, but some minor discrepancies exist	Low probability for negative public trust perception
<b>Efficiency Opportunity</b>	An efficiency opportunity is where controls are functioning as intended; however, a modification would make the process more efficient			